

split

Wednesday, 14/01/2009 3:14:03 PM
User: Linda Lacelle

Process Sheet

DUPLICATE

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : BUBBLE DOOR 412 VERTICLE REFERENCE
Job Number : 41414	
Estimate Number : 13138	
P.O. Number :	Part Number : D36761
This Issue : 14/01/2009 S.O. No. :	Drawing Number : D3676
Prsht Rev. : NC	Project Number : 00224
First Issue : 19/08/2008 Type : THERMOFORMING	Drawing Revision : <i>B Preliminary</i>
Previous Run : 41413	Material :
Written By :	Due Date : 26/08/2008 Qty: <i>3</i> Um: Each
Checked & Approved By : <i>mf 09-01-14</i>	
Comment : Est. Rev A New Product 01/24/2008 DL Verified:JLM	

Additional Product

09-01-14 Per ECT 04-502P
PRELIMINARY ISSUE

Job Number:





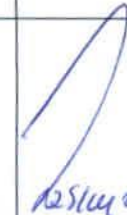
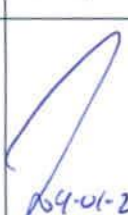


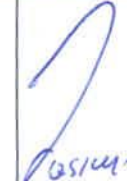

Seq. #:	Machine Or Operation:	Description :
1.0	MACRLICS250	Plexiglass G .250
Comment: Qty.: 13.0000 sf(s)/Unit Total : 26.0000 sf(s) 0.250" PLEXIGLAS G CLEAR CAST ACRYLIC SH <i>M107871 x2</i> 1) Batch # <i>M110577 x3</i>		
2.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
Comment: HAND FINISHING THERMOFORMING Set up Machine as per folio FTA 018 and D3676 program <i>DL 09/01/20.</i>		
3.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
Comment: HAND FINISHING THERMOFORMING 1) Cut Blanks to 30" by 48" <i>DL 09/01/20.</i>		
4.0	THERMOFORMING	THERMOFORMING MACHINE
Comment: THERMOFORMING MACHINE Thermoform as per Dwg. D3676 and Folio FTA 018 Dwg. Rev. <i>B PRELIMINARY.</i> Folio Rev. <i>B.</i> <i>DL 09/01/21</i>		

(X5) - PTO

> >

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3676-1 → D412-761-015 PAR #: N/A Fault Category: Thermal NCR: Yes No DQA: lt Date: 09-11-06
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: 7 Date: 05-11-17

NCR: <u>41414</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09/01/20	4.	SHEET PULLED OUT OF CLAMPS. RC: PROCESS		SCRAP: Replace. Qty 1	09/01/20 Sh			
09/01/20	4	SHEET BURNED. Qty 1 RC: PROCESS		Reset clamp FRAMES. adjust heating. SCRAP: Replace	Sh 09/01/20			

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BUBBLE DOOR 412 VERTICLE REFERENCE

Job Number: 41414

Part Number: D36761

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

1) Check Surface finish for undesired marks, voids, dimples etc.

2) Check depth of bubble to ensure conformity to drawing tolerances.

x3

09/01/21

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

ENGINEERING APPROVAL
09.01.23 (3)

09.01.03 (3)

7.0

HAND FINISH TH

HAND FINISHING THERMOFORMING



Comment: HAND FINISHING THERMOFORMING

1) Trim off excess flange material

2) Buff out any light scratches or blemishes

3) Etch part number and batch number

09/01/23

8.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

09/01/23

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

09.01.23 (3)

ENGINEERING APPROVAL
09.01.03 (3)

1) Visually inspect for clarity, and proper formation.

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

09.00.20

(3)

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/10/23

Job Completion



POSITIVE RECALL
EFFECTIVE 09.01.15
RELEASED 09.10.20

AUTH

DATE

09.10.22



W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Part 1

DART AEROSPACE LTD	Work Order: 41414
Description: 412 VR. Bubble	Part Number: D-3676-1
Inspection Dwg: D3676 Rev: B PRELIMINARY	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than _____" <i>N/A</i>				
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: *Whe*

Date: 09/01/27

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
46.0"	$\pm .100$	46.0"	✓		TAPE	
29.1"	$\pm .100$	29.1"	✓		TAPE	
24.6"	$\pm .100$	25.6"	✓		TAPE	
0.050"	MIN	0.065"	✓		ULTRA	
0.070"	MIN	0.108"	✓		ULTRA	
0.090"	MIN	0.113	✓		ULTRA	

Measured by: *Whe*

Date: 09/01/27

Audited by: *2*

Date: 09-01-23

Prototype Approval: *N/A*

Date: _____

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/DL	



PART 2

DART AEROSPACE LTD	Work Order: 41414
Description: 412 VR Bubble	Part Number: D3676-1
Inspection Dwg: D3676 Rev: B PRELIMINARY	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than _____ " N/A				
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: 09/01/22 DR

Date: 09/01/22

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
46.0"	±/- .100	46.0"	✓		TAPE	
29.1"	±/- .100	29.1"	✓		TAPE	
34.6"	±/- .100	34.6"	✓		TAPE	
0.050"	MIN	0.063"	✓		ULTRA	
0.070"	MIN	0.107"	✓		ULTRA	
0.090"	MIN	0.120"	✓		ULTRA	

Measured by: DR

Date: 09/01/22

Audited by: 2

Date: 09-01-23

Prototype Approval:

Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/DL	



Part 3

DART AEROSPACE LTD	Work Order: 41414
Description: 412 UR BUBBLE	Part Number: D3626-1
Inspection Dwg: D3626 Rev: B PRELIMINARY	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than _____ " N/A				
Shape Definition				
Texture Retention				
Material imperfections such as bumps, cracks, voids, scratching				

Measured by: DL Date: 09/01/22

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
36.0 "	+/- .100	46.1	✓		TAPE	
29.1 "	+/- .100	29.1	✓		TAPE	
24.6 "	+/- .100	24.6	✓		TAPE	
0.050"	MIN	0.076	✓		ULTRA	
0.070"	MIN	0.116	✓		ULTRA	
0.090"	MIN	0.118	✓		ULTRA	

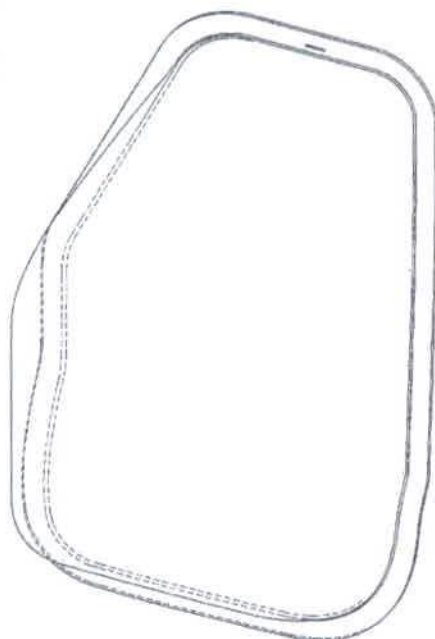
Measured by: DL Date: 09/01/22

Audited by: J Date: 09-01-23

Prototype Approval: _____ Date: _____

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/DL	

44



W/O 41414

D3676-1 412 BUBBLE WINDOW

RELEASED
09/04/2011

NOTES:

- 1) MATERIAL: PLEXIGLAS G CLEAR CAST ACRYLIC SHEET PER LP-391 TYPE 1 GRADE C
OR POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425,
0.236 THICK (STOCK REF. DART SPEC. M-ACRYLIC-S.236)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX.
- 6) IDENTIFICATION: ENGRAVE P/N "D3676-1" & B/N "BXXXXX" ON FLANGE WITHIN 0.25" OF BUBBLE.
USE 0.125" LETTERS TO MAX. DEPTH OF 0.005"
- 7) WEIGHT: 11.0 lbs
- 8) VACUUM FORM PER FOLIO FTA018 USING DT8992 MOLD AND DART QSI 022

B	REVISED TOLERANCE ON MINIMUM THICKNESSES (2N AMB8-2). REASON: PRODUCTION FACILITY.	MB	08.10.27
A	NEW ISSUE	MB	08.02.29
REV	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.10.27		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.
D3676

TITLE
412 BUBBLE WINDOW

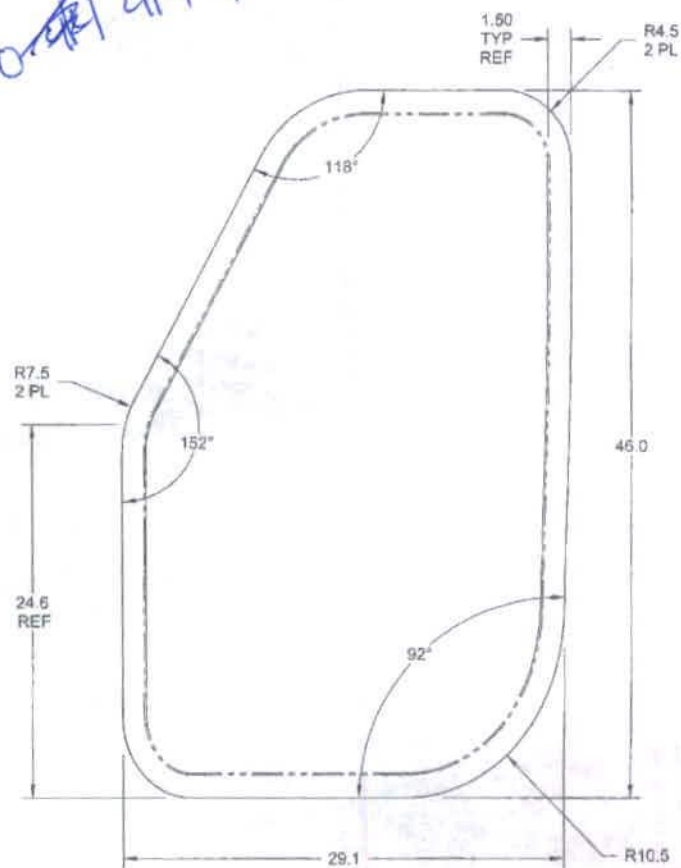
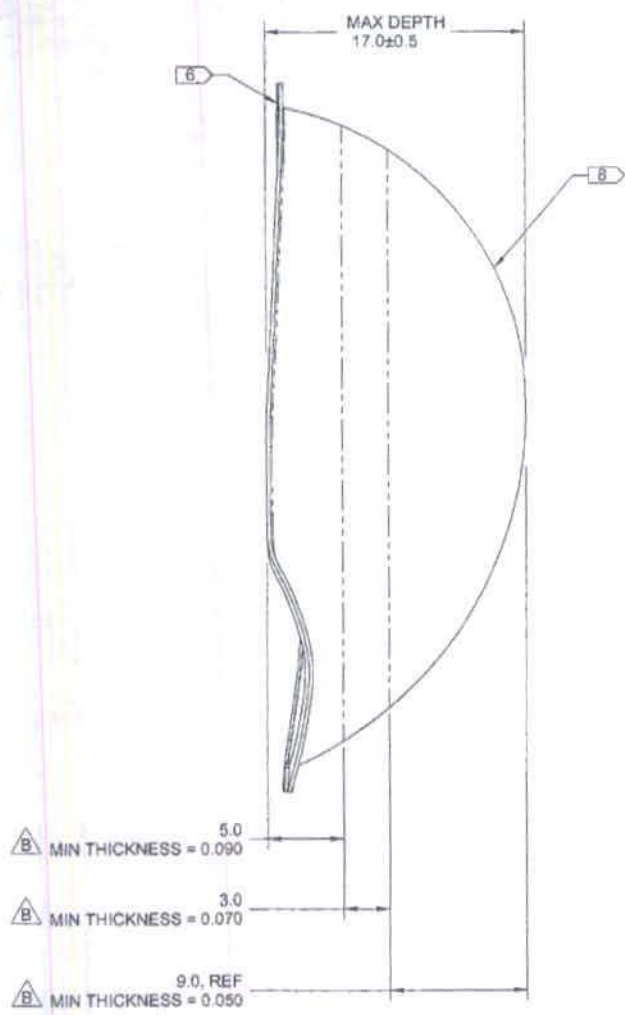
REV. B
SHEET 1 OF 2

SCALE
N/A

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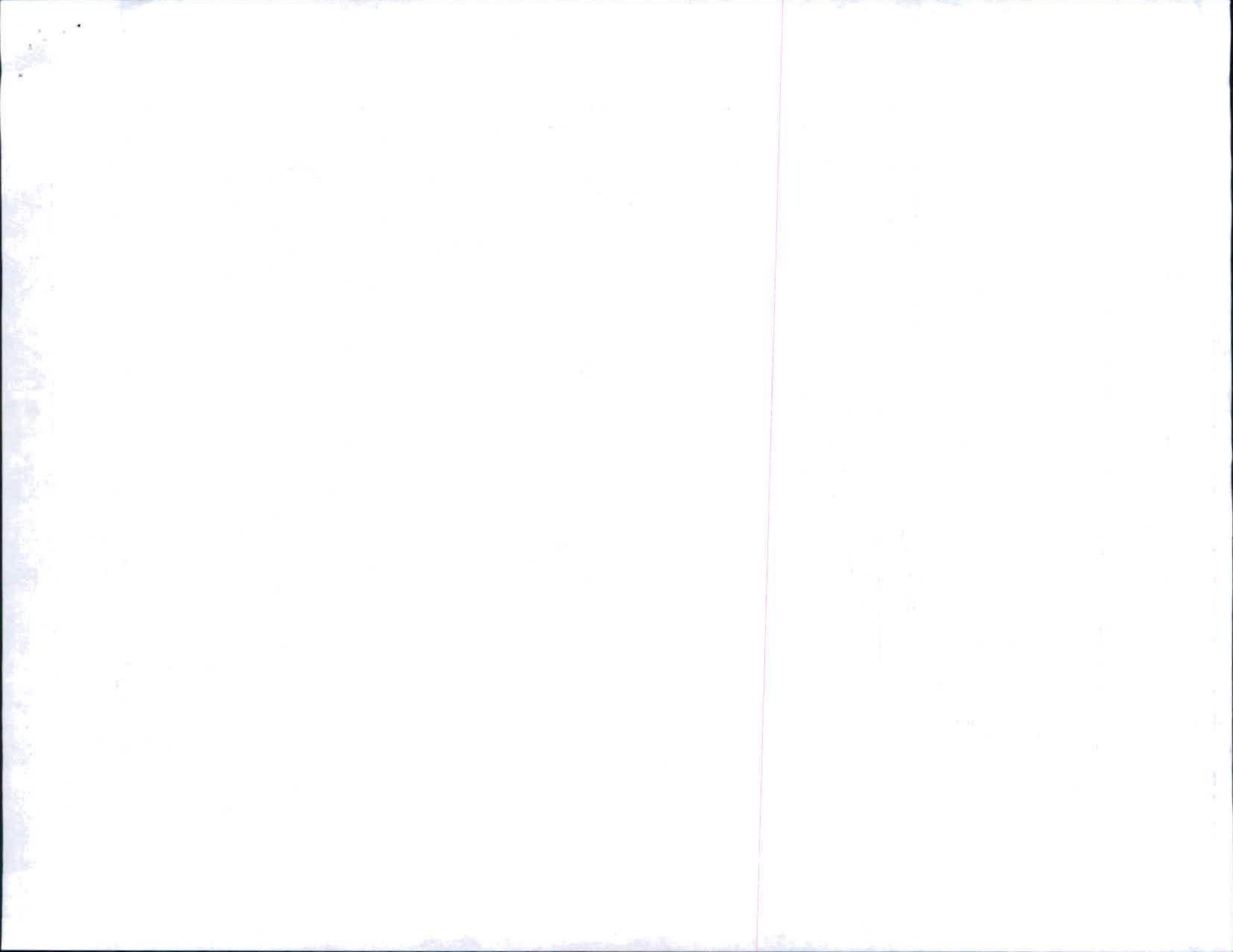
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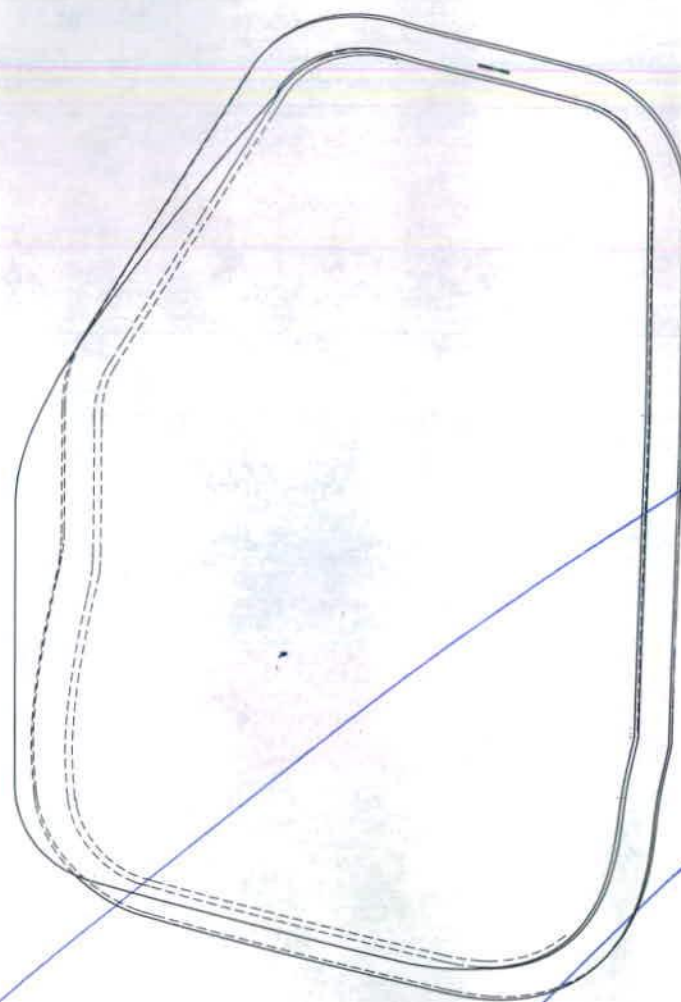


D3676-1 412 BUBBLE WINDOW

RELEASED
08/10/27

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MFG. APPR.		D3676	SHEET 2 OF 2
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See Approved
dwg attached

41414

D3676-1 412 BUBBLE WINDOW

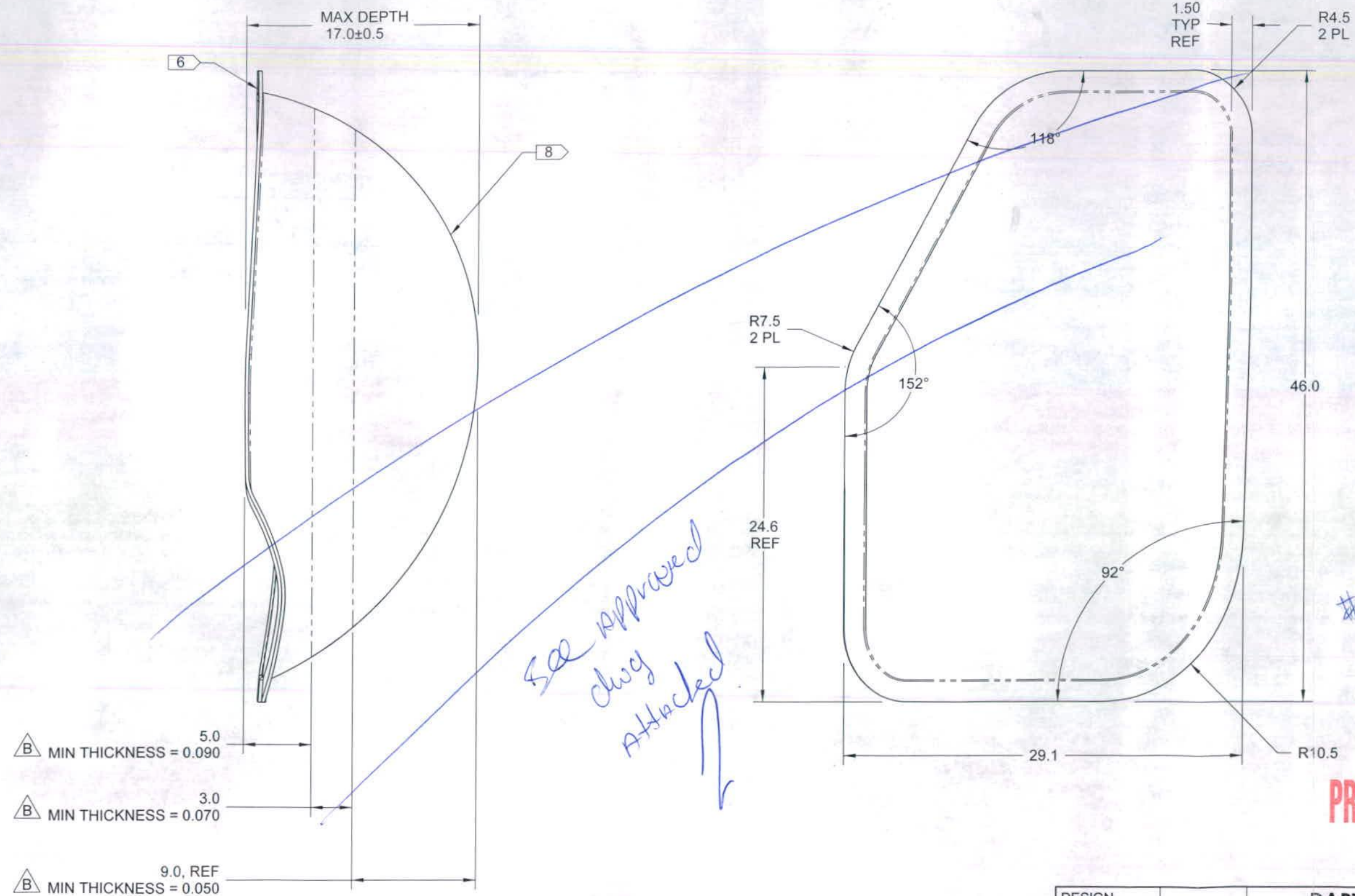
PRELIMINARY ISSUE

08.01.14
Per ECN#09-502P

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A	NEW ISSUE	MB	08.02.29
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D3676-1 412 BUBBLE WINDOW

PRELIMINARY ISSUE

09.01.14
Per ECN # 09-5028

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